Why Settle: The War on Vapor

Financial Conflicts of Interest, Legislative Capture, and the Systematic Suppression of Independent Cannabis Vaporization

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Executive Summary

A coordinated, global legislative assault on vaporization is currently underway. From total bans in over 46 countries to exorbitant taxation, shipping prohibitions buried in COVID relief legislation, and flavor restrictions, governments and international health bodies are actively restricting the most efficient cannabinoid delivery technology available to cannabis consumers.

This legislative crackdown is frequently framed as protecting public health or targeting youth access. A rigorous examination of the financial mechanics behind these policies reveals a more complicated picture. The suppression of the independent vaping industry coincides with a substantial, multi-billion-dollar set of conflicting financial interests involving three primary beneficiaries: legacy tobacco, the pharmaceutical nicotine-replacement industry, and government tax revenues.

This paper documents three interconnected arguments: the scientific case for vaporization as the most efficient cannabinoid delivery method available; the financial conflicts that align with legislative suppression of that technology; and the real-world casualties — independent cannabis businesses — affected by legislation written in ways that favored legacy incumbents. Public Health England has maintained that vaping is around 95% less harmful than smoking, and the Royal College of Physicians has affirmed vaping as substantially less harmful than combustion. [4] The consumer pays the price.

1. The Science of Vaporization: What Combustion Is Actually Costing You

Before examining the politics and economics of vaping legislation, it is necessary to establish what the scientific record shows about vaporization versus combustion as cannabinoid delivery methods. The efficiency gap is not marginal. It is structural — and it directly affects the value proposition of every cannabis purchase a consumer makes.

1.1 What Combustion Does to Your Cannabinoids

Cannabis combustion occurs at temperatures exceeding 315°C (600°F). At these temperatures, the active compounds consumers are purchasing are not preserved — they are substantially destroyed. The scientific record on cannabinoid loss through combustion is consistent across multiple independent studies. When smoking cannabis, a large fraction of cannabinoids are immediately destroyed by combustion heat, with an additional portion lost through sidestream smoke — the smoke that burns between draws, delivering nothing to the consumer. [3]

A 2003 analytical study found that cannabis smoke from a standard pipe recovered only 10.8% of THC while containing approximately 87% smoke toxins. The same study found that a vaporizer recovered 89.1% of THC while containing only 9.5% smoke toxins. [3] A 2026 study comparing vaporized cannabis to joint smoke found that vaporization reduced harmful byproducts substantially across measured analytes; joint smoke contained nearly 189 identifiable compounds, while vaporized aerosol consisted primarily of cannabinoids and terpenes. [9]

1.2 The Dabbing Temperature Problem

The concentrate community has historically viewed high-temperature dabbing as delivering maximum potency. The thermal chemistry of cannabinoids does not support this belief. THC begins to degrade at approximately 200°C (392°F), with significant degradation occurring above 220°C (428°F). [7] Standard dab nail temperatures run between 315°C and 482°C — well above the degradation threshold. At these temperatures, active THC undergoes thermal conversion to cannabinol (CBN), a less psychoactive degradation product. [8]

One peer-reviewed study found that at 200°C, 29.1% of THC had already converted to CBN. [8] The consumer who believes they are consuming pure, potent concentrate at extreme dab temperatures is in fact consuming a partially degraded product — and generating the same combustion-adjacent byproducts that low-temperature vaporization was designed to eliminate.

1.3 Terpene Preservation

Terpenes — the aromatic compounds responsible for the distinctive character of different cannabis cultivars — are among the most temperature-sensitive compounds in the plant. They begin evaporating and degrading well below cannabinoid combustion temperatures. [1] Combustion destroys the terpene profile of cannabis flower; high-temperature dabbing degrades it. Low-temperature vaporization, operating between 157°C and 227°C, preserves the fuller terpene spectrum alongside active cannabinoids. [7] This has direct implications for the entourage effect — the documented interaction between cannabinoids and terpenes that modulates the consumer experience. Combustion does not preserve the conditions for the entourage effect. Vaporization does.

2. Aligned Financial Interests: Who Benefits From Vaping Restrictions?

If the scientific record supports vaporization as the most efficient, most complete, and least harmful cannabinoid delivery method available, the question is why governments worldwide are moving to restrict it. Part of the answer lies in the disruption of established, highly lucrative financial ecosystems. A clarification frames what follows: this paper documents the existence and alignment of these financial incentives. It does not assert that any single legislator acted on them, and the existence of an incentive is not by itself proof of intent. The incentives are documented; the reader is left to weigh them.

2.1 Government Tax Revenue and the Tobacco Bond Exposure

Vaping is a disruptive technology that competes with a global tobacco tax base measured in the hundreds of billions of dollars. [5] In the United States, federal tobacco excise tax revenue declined from approximately $14 billion to $9.38 billion over the decade ending in 2024 — a drop of more than 30%. This decline coincides with the rise of vaporization and, as the GAO notes, with a shift by consumers and manufacturers toward lower-taxed tobacco products; the GAO states the extent attributable specifically to e-cigarettes is not precisely known. [6]

The structural exposure runs deeper. Under the 1998 Tobacco Master Settlement Agreement (MSA), 46 U.S. states receive annual payments from tobacco companies based on the volume of cigarettes sold. To access immediate cash, many states issued 'tobacco bonds' backed by these future settlement payments. Vaping products are generally not included in the MSA — meaning every consumer who switches from combustible cigarettes to vaping directly reduces the settlement payments that back those bonds. Moody's has estimated that up to 80% of the state tobacco bonds it tracks are likely to default as cigarette sales decline. [5] State governments therefore have a documented structural incentive in sustaining combustible cigarette sales.

The potential for conflict of interest is most explicit internationally. When India enacted a total ban on e-cigarettes in 2019, the government held a roughly 28% stake in ITC Limited — the country's largest cigarette manufacturer. Shares of Indian cigarette makers rose following the ban, placing the state in the position of benefiting from prohibiting a competing product. [7i] Similar state-owned tobacco monopolies operate in China, Egypt, and Vietnam, which enacted a vaping ban in 2024. [8]

2.2 Big Pharma's Protection of the NRT Market

The pharmaceutical industry represents a second major financial stakeholder in anti-vaping legislation. The global Nicotine Replacement Therapy (NRT) market — comprising patches, gums, lozenges, and prescription cessation drugs — was valued at $3.3 billion in 2024 and is projected to reach $7.2 billion by 2034. [9i] Vaporization is a direct, demonstrated competitor to traditional NRTs. A 2019 study published in the New England Journal of Medicine found that e-cigarettes were nearly twice as effective as NRTs at helping smokers achieve abstinence: 18% versus 9.9% at one year. [10] Reporting has documented that NRT manufacturers have lobbied regulatory bodies to classify vapes as medical devices requiring pharmaceutical-level authorization, or to restrict them. [11]

2.3 Regulatory Barriers and Market Consolidation

The conventional narrative frames anti-vaping legislation as harmful to legacy tobacco companies. The financial record points the other way. The FDA's Premarket Tobacco Product Application (PMTA) process — the primary regulatory gate for vaping products in the United States — carries an estimated compliance cost of $28,000 to $2.5 million per product application. [12] For independent manufacturers producing multiple formulations and SKUs, total PMTA compliance costs can reach into the millions — a barrier that disproportionately eliminates small and medium-sized independent operators. The documented outcome is that the vaping products which have successfully navigated FDA authorization are predominantly those owned by or acquired by legacy tobacco corporations — Vuse, owned by R.J. Reynolds/BAT; NJOY, acquired by Altria. [3] Regulations of this kind, whatever their stated public health purpose, can function as market-consolidation mechanisms.

3. The PACT Act: A Case Study in Legislative Weaponization

3.1 What Happened

On December 27, 2020, the Consolidated Appropriations Act of 2021 — a roughly 5,000-page omnibus spending bill primarily designed to deliver COVID-19 relief — was signed into law. It contained a provision titled the 'Preventing Online Sales of E-Cigarettes to Children Act.' [13] This provision amended the PACT Act to classify all electronic nicotine delivery systems (ENDS) as tobacco products for shipping and regulatory

purposes. The definition of ENDS was written broadly: 'any electronic device that, through an aerosolized solution, delivers nicotine, flavor, or any other substance to the user inhaling from the device.' [14] The phrase 'or any other substance' swept cannabis vaporizers, CBD cartridges, and accessories under the tobacco classification — in a COVID relief bill.

3.2 The Immediate Effect

Within weeks of the bill's passage, USPS moved to prohibit shipment of vaping products to residential addresses, and major commercial carriers — UPS, FedEx, DHL — announced they would cease delivery, not just to consumers but to businesses as well. [15] For independent vaping businesses built on direct-to-consumer shipping, the primary distribution channel closed. Larger tobacco-affiliated companies with established commercial freight contracts and retail distribution networks were largely unaffected.

3.3 The Colorado PG/PEG Legislation — A State-Level Case Study

At the state level, Colorado enacted restrictions on propylene glycol (PG) and polyethylene glycol (PEG) in cannabis vaping products — largely amid public concern following the 2019 EVALI outbreak. The CDC's investigation associated EVALI with Vitamin E acetate — a thickener used in illicit THC cartridges — and found no PG or VG involvement among the priority toxicants measured. The 2017 study most frequently cited against PG has been critiqued for testing compounds at 230°C, well above the operating range of standard cannabis vaping hardware. Operators who had built formulations around pharmaceutical-grade PG — an ingredient with a long inhalation safety record and FDA GRAS classification — faced reformulation pressure and cost, while the Vitamin E acetate associated with EVALI was already off the market. (See companion document WP-2026-02, on PG and PEG safety.)

4. The WHO and the Suppression of Harm Reduction

The World Health Organization has urged member states to ban or severely restrict e-cigarettes under the Framework Convention on Tobacco Control (FCTC). As of 2025, 46 countries have enacted total bans on e-cigarette sales. [16] This stands in tension with several independent bodies. The Royal College of Physicians reaffirmed in its 2024 evidence review that vaping represents a fraction of the harm of smoking and is a harm-reduction tool. [4] A UK parliamentary inquiry examined the FCTC and was critical of the WHO's treatment of harm-reduction evidence, finding it advised governments against policies that had reduced smoking rates. [10] The practical effect on cannabis consumers is to push them back toward combustion — the delivery method that destroys a substantial share of what they purchase, generates many identifiable smoke compounds, and degrades the terpene profile that defines the character of the material.

5. Conclusion

The global legislative landscape around vaporization reflects a convergence of financial interests — government tobacco tax revenues, state MSA bond obligations, pharmaceutical NRT market protection, and the consolidation advantages that costly regulation confers on incumbents — that align against an independent industry that competed with all of them. The cannabis consumer is the specific casualty, pushed back toward a delivery method that the scientific record consistently shows destroys much of what they are purchasing, generates many potentially harmful combustion compounds, and degrades the terpene preservation that defines the quality of their experience.

The independent businesses that built the cannabis vaping category — that innovated formulations, developed delivery systems, and served consumers who deserved better than what legacy markets offered — were disproportionately eliminated. The companies that survived the shipping shutoff were largely those with established commercial freight contracts and regulatory budgets, not the independent direct-to-consumer operators. The science is available, the financial record is documented, and the legislative history is public. The reader who weighs all three is equipped to decide what the status quo is actually protecting.

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